

### **ABSTRACT OF THE DISCLOSURE**

A parallel fluid processing system including multiple fluid process regions containing solid material in fluid communication with a common first fluid source may be used to conduct analyses and/or synthesis in parallel. A parallel fluid processing data correction method

5 includes supplying and processing a calibrant in each fluid process region, measuring a first physical parameter and deriving at least one correction factor based on the parameter, supplying and processing at least one second fluid in each fluid process region, and then applying the correction factor to yield corrected process data. Retention time correction, peak area correction, and other useful data corrections may be performed. Parallel fluid processing

10 may be performed with microfluidic devices and systems. A system for correcting retention times in parallel liquid chromatography is further provided.